

FTA Science Conference 2020

Nairobi, Kenya – ICRAF Premises

15-17 September 2020

Presenter

The presenter is the person traveling to Nairobi to present the work (lead author or not)

Presenter: Eric Penot

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Authors information

Including presenter

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Abstract information

Instructions – Abstract should be either 500 words max or 300 words and 1 figure with caption max. Please do not change the formatting in the box (font type Arial, size 10, single space).

→ Save your file in MS Word format and give your file the name "FTA2020 - ABSTRACT - Surname Author1 et al.doc(x)"

Rubber Agroforestry systems in Kalimantan, Indonesia: impact assessment since 1994 and future prospects for agroforestry systems

The SRAP research project (Smallholder Rubber Agroforestry Project) has been implemented by CIRAD/ICRAF/IRRI from 1994 to 2007 in West Kalimantan. The main objective was to replace old ageing and economically obsolete "jungle rubber", the traditional rubber based agroforestry systems based on unselected seedlings to clonal rubber agroforestry systems based on high rubber clone productivity and adapted to different local situations. From 1994 to 1997 were established more than 60 on farm trials plots with local farmers in order to test various tree and intercrops combinations. The study of these plots in 2020 provided some conclusions. Rubber agroforestry trials came right in time in 1994, with a strong demand from farmers for rubber systems using good planting material with high productivity, clonal rubber, with low establishment cost and income diversification. But oil palm schemes with private estates came in 1997 with a very strong pressure from these companies (through the policy of concessions) to release land in exchange of 2 ha of oil palm, therefore providing a lucrative alternative to rubber cultivation with full access to credit (but loss of land) and better return to labor. It is now time for rubber replantation as rubber is at the end of its lifespan, due also to the high impact of diseases and poor tapping practices.

It was very interesting to engage an in-depth socio-economic survey involving all SRAP farmers, in order to assess the current situation of farmers' income (generated by oil palm/rubber and any other sources) and the farmers' ongoing and planned strategies as rubber remain a real alternative for income diversification and resilience. The use of Olympe software for income simulation and budget analysis is worth testing various strategies including agroforestry practices. A prospective analysis provide an assessment of the impact of oil palm and rubber price volatility. Low rubber prices did not help in maintaining farmers' interest in rubber, however farmers know about rubber price

volatility over the years and they are not willing to abandon rubber as crop diversification remains a priority.

Beside the economic analysis of rubber-based agroforestry systems and role of oil palm in income diversification, three major questions are shaping the research agenda: i) what is the impact of local fruit production derived from agroforestry systems on food safety and diet quality of local families?, ii) What is the impact of timber production, both for self-consumption in households and marketing? lii) To what extent the AF systems under study are able to provide better climatic resilience?

This study is performed through the Plantation Priority 02 of the Forest, Trees and Agroforestry (FTA) programme and will contribute to the global comparative analysis of rubber smallholder supply chains of the GPSNR (Global Platform for Sustainable Natural Rubber)

Theme

Indicate the **theme** to which your abstract refers (see the list of 6 themes in the Concept Note)

Transforming livelihoods through agroecological approaches with trees

Stream co-ordinators: Fergus Sinclair, Eduardo Somarriba and Li Yianxia

Keywords

Indicate a **maximum of 5 keywords**

Rubber, agroforestry, diversification, Kalimantan, Indonesia.

References

Indicate a **maximum of 5 references**

1 Mulyoutami E, Joshi L, Ilahang, Wibawa G and Penot E. (2008). Pembangunan wanatani berbasis karet pada lahan terdegradasi alang-alang di Kalimantan Barat (Development of Rubber Agroforests on Degraded Imperata Grassland in West Kalimantan). Jurnal Penelitian Karet. 26(1):P. 20-30. URL sur site ICRAF. <http://agritrop.cirad.fr/546589/>

2 Penot E (2006). From Shifting Cultivation to Sustainable Jungle Rubber: A History of Innovations in Indonesia. Chapter 48 of the book Voices from the Forest Integrating Indigenous Knowledge into Sustainable Upland Farming. Malcolm Cairns, editor. 2006. Browse Book. 880 p.

3 Geissler, & Penot Eric. (2000). Mon palmier à huile contre ta forêt ".Déforestation et politiques de concessions chez les Dayaks, Ouest-Kalimantan, Indonésie." Bois et Forêts des tropiques, 2000, n° 266 (4). P7-22. <http://revues.cirad.fr/index.php/BFT/article/view/20027>

4 Penot E. (2004) Improved agroforestry systems. In "upland agriculture in Indonesia". World Bank/Banque Mondiale. Edited by F Ruf and F Lancon. Edition janvier 2004.

5 Penot, E. (2001). Stratégies paysannes et évolution des savoirs : l'hévéaculture agroforestière indonésienne. Thèse de doctorat. Faculté des Sciences Economiques. Montpellier, Université Montpellier I.: 360p.

Type of intervention

I would like to present in the form of: Oral presentation ☐ / Poster ☐ / Indifferent ☐

Early career *

Special attention will be deserved to early career / young scientists' abstracts. If you are applying for this category, please indicate: Highest degree obtained: PhD • Year when this degree was obtained: 2001

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Deadline for abstract submission has been extended until 14th February 2020